Remarks

Claim Status:

Claims 1-23 remain pending in the application.

Allowed claims:

We appreciate the indication that claims 11, 16-18 and 22 recite patentable combinations. These claims stand ready for allowance. The remaining claims are also believed to be in condition for allowance. Favorable reconsideration is requested.

Art-based Rejection:

Claims 1, 2, 3, 4, 5, 6, 9, 10, 12, 19, 20, 21 and 23 stand rejected as being anticipated by or obvious over Aucsmith (U.S. Patent No. 6,148,407).

Claims 7 and 8 stand rejected as being unpatentable over Aucsmith in view of DeMartin (U.S. Patent No. 6,226,672).

Claims 13-15 stand rejected as being unpatentable over Aucsmith in view of Li (U.S. Patent No. 6,219,793).

Applicants respectfully traverse these rejections.

Claim 20

Claim 20 envisions a signal including an embedded digital watermark. The digital watermark is decoded to obtain a plural-bit identifier, and the identifier is used to help interrogate a database to identify a set of fingerprints, in combination with other claim features.

The term "digital watermark" implies data hiding and is a form of "steganography". Steganography is a term derived from the Greek words *steganos* (meaning "covered") and *graphia* (meaning "writing").[1] The very existence of a

[1] See I. J. Cox, et al. "Digital Watermarking," Chapter 1, page 3. 2002 by Academic Press.

steganographic message is secret.[2] Digital watermarking essentially hides auxiliary information (e.g., plural-bit data) in a host signal (e.g., audio, video or images).

The present specification incorporates assignee's U.S. Patent Application No. 09/503,881 (now U.S. Patent No. 6,614,914) by reference. Please see paragraph 34 (page 7) and paragraph 55 (page 13). The '914 patent describes digital watermarking in even further detail.

> *Digital watermarking is a process for modifying media content to embed a machine-readable code into the data content. The data may be modified such that the embedded code is imperceptible or nearly imperceptible to the user, yet may be detected through an automated detection process. Most commonly, digital watermarking is applied to media such as images, audio signals, and video signals. However, it may also be applied to other types of data, including documents (e.g., through line, word or character shifting), software, multi-dimensional graphics models, and surface textures of objects.*
>
> *Digital watermarking systems have two primary components: an embedding component that embeds the watermark in the media content, and a reading component that detects and reads the embedded watermark. The embedding component embeds a watermark pattern by altering data samples of the media content. The reading component analyzes content to detect whether a watermark pattern is present. In applications where the watermark encodes information, the reader extracts this information from the detected watermark.*

See U.S. Patent No. 6,614,914, Col. 1, lines 25-45.

[2] See id.

While digital watermark may sometimes employ encryption, e.g., to scramble or lock auxiliary information, digital watermarking is not an encryption process as suggested by the final Office Action. See the Final Office Action at page 5, lines 5-6 of paragraph 6 ("Digital watermarking is basically an encryption process . . . .").

Encryption locks or scrambles content. Encryption doesn't conceal the existence of hidden auxiliary information, like steganography or watermarking. Rather, it converts plaintext into ciphertext in order to prevent anyone except the intended recipient from reading that data.[3]

We have reviewed the cited passages of the Aucsmith patent (Col. 4, lines 19-20, 57-67 and Col. 5, lines 5-7). While some of these passages (lines 57-67) discuss "encryption" they do not suggest that encrypted information is hidden or concealed in host content.

The Col. 4, lines 19-20 passage discusses traits contained in a computer system's memory. For example, the traits might include a user preference (lines 23-25), OS manufacturer, OS version (lines 29-30), time zone, time format (lines 34-35, etc.). But these traits are not hidden or concealed in host data, as they are merely stored in system memory. These passages do not teach or suggest digital watermarking.

The cited Col. 5, lines 5-7 passage discusses a verification process through fingerprinting as illustrated in Fig. 4. Here again, these passages do not discuss digital watermarking.

The Aucsmith patent does not teach or suggest each of the features of claim 20, including digital watermarking.

We respectfully request allowance of claim 20.

Claim 23

Claim 23 envisions content including an embedded digital watermark. The digital watermark is decoded to obtain a plural-bit identifier. A database is accessed with at least the plural-bit identifier, in combination with other features of the claim.

[3] A Google search consisting of "define encryption" yields many such definitions.

As discussed above with respect to claim 20, the Aucsmith patent is not understood to teach or suggest digital watermarking, let alone the specific combination discussed in claim 23.

We respectfully request reconsideration.

Claim 9

The Office Action refers to Col. 3, lines 29-32 of Aucsmith as teaching broadcast signals at a reference receiver (see the Office Action on page 6, lines 5-6). Applicants do not dispute that this passage discusses transmission of digital audio or video.

We do question, however, whether this passage and Col. 8, lines 58-65 teach or suggest the combination recited in claim 9. For example, claim 9 recites:

receiving a signal from a first broadcast source at a reference receiver;

generating first fingerprint data from the received signal; and

applying the first fingerprint data to a database to select associated information.

The cited passages of the Aucsmith patent (Col. 8, lines 58-65) do not use or apply first fingerprint data to a database to select associated information. Instead, the passages discuss comparing trait values of an unidentified computer system to trait values from a known computer system.

These Aucsmith passages do not seem to suggest any database inquiry or interrogation using the first fingerprint data to trigger selection of associated information.

Claim 9 further recites that associated information is selected from the database, second fingerprint data is received, and the second fingerprint data is compared with the associated information from the database.

Aucsmith at Col. 8, lines 58-65 discusses a comparison of first traits directly with second traits.

Claim 9, in contrast, uses a first fingerprint to select associated information and then compares a second fingerprint to the associated information.

We respectfully request allowance of Claim 9.

Claim 12

Claim 12 recites:

receiving a signal from a first broadcast source at a reference receiver;

generating first fingerprint data from the received signal; and

applying the first fingerprint data to a database to select associated information.

The cited passage of the Aucsmith patent (Col. 8, lines 58-65) does not use or apply first fingerprint data to select associated information. Instead, this passage discusses comparing trait values of an unidentified computer system to trait values from a known computer system.

There does not seem to be any mention or suggestion of a database inquiry or interrogation using the first fingerprint data to trigger selection of associated information.

Claim 12 further recites that associated information is selected from the database, second fingerprint data is received, and the second fingerprint data is compared with the associated information from the database.

Aucsmith at Col. 8, lines 58-65 discusses comparing first traits directly with second traits.

Claim 12, in contrast, uses first fingerprint data to select associated information and then compares second fingerprint data to selected associated information.

We respectfully request that claim 12 be allowed.

Claim 13

Claim 13 should be allowed for at least reasons analogous to those presented above with respect to claims 9 and 12.

We respectfully request that claim 13 be allowed.

Claim 14

Claim 14 should be allowed for at least reasons analogous to those presented above with respect to claims 9 and 12.

Claim 14 also recites determining a geographical location of the user device. The final Office Action does not even address this feature (see the final Office Action on page 5, paragraph 4).

(The Office Action only suggests that Li teaches a cell phone generating second fingerprint data.)

The final rejection should be removed for at least this reason alone.

We respectfully request favorable reconsideration.

Claim 7

Claim 7 recites selecting a song from the plurality of songs based on a number of times a selected song matches the aggregated fingerprints.

The Office Action cites the DeMartin patent at Col. 4, lines 49-62 as meeting this feature. We respectfully disagree.

The DeMartin passage discusses that a Table of Contents (TOC) of a disk is used to find a matching title and name of a track stored in a database associated with a Music Web server.

But there is no consideration in the DeMartin passage of a number of times that a selected track matches a particular TOC. Instead, the DeMartin passage is focused on finding a particular title ("Using the database, the TOC data from each CD is matched against its title and the name of each track on that CD." See the DeMartin patent at Col. 4, lines 58-60.).

We respectfully request that claim 7 be allowed.

Claim 1

Claim 1 recites aggregating first fingerprint data and second fingerprint data.

Aucsmith would merely generate a first fingerprint and generate a second fingerprint, and compare the two fingerprints to determine a probability as to whether a first computer system is the same as an unidentified computer system (see also Col. 7, lines 15-24).

But we do not see an aggregation (e.g., combining) of first and second fingerprints.

We respectfully request that claim 1 be allowed.

Remaining Claims

The remaining claims are also believed to recite patentable combinations. Favorable and independent consideration is respectfully requested.

Conclusion

The application stands ready for allowance. (We need not belabor the many other deficiencies of the art at this time.) Nevertheless, the Examiner is invited to contact the undersigned with any questions.

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Respectfully submitted,

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